INTERAGENCY AGREEMENT
BETWEEN
WASHINGTON STATE PARKS AND RECREATION COMMISSION
AND
UNIVERSITY OF WASHINGTON

THIS AGREEMENT is made and entered into by and between the Washington State Parks and Recreation Commission, hereinafter referred to as "PARKS" and the University of Washington, hereinafter referred to as "UNIVERSITY".

IT IS THE PURPOSE OF THIS AGREEMENT to provide for UNIVERSITY to complete the work identified in the statement of work that PARKS is unable to perform.

THEREFORE, IT IS MUTUALLY AGREED THAT:

STATEMENT OF WORK

UNIVERSITY shall furnish the necessary personnel, equipment, material, and/or service(s) and otherwise do all things necessary for or incidental to the performance of the work set forth in Attachment "A" attached hereto and incorporated herein.

PERIOD OF PERFORMANCE

Subject to its other provisions, the period of performance of this Agreement shall commence on or about September 1, 2008. This project is expected to take nine (9) months to complete and will be completed no later than June 30, 2009, unless terminated sooner as provided herein. The agreement will automatically expire June 30, 2009, unless completed sooner as provided herein.

PAYMENT

Compensation for the work provided in accordance with this Agreement has been established under the terms of RCW 39.34.130. The parties have determined that the cost of accomplishing the work herein will not exceed **Forty-Two Thousand, Eight Hundred Forty-Four, and No/100ths Dollars ($42,844.00)**, based on the included herein estimated budget. Payment for satisfactory performance of the work shall not exceed this amount unless the parties mutually agree to a higher amount. Compensation for service(s) shall be based on rates provided herein.

BILLING PROCEDURE

UNIVERSITY shall submit no less often than monthly invoices for work performed. Upon expiration of the Agreement, any claim for payment not already made shall be submitted within 30 days. Invoices shall be submitted to PARKS Representative for approval of payment**.** Billing shall be made on actual itemized work plus indirect costs, not as a lump sum. Payment to UNIVERSITY for approved and completed work will be made by warrant or account transfer by PARKS within 30 days of receipt of the invoice.

RECORDS MAINTENANCE

The parties to this Agreement shall each maintain books, records, documents and other evidence which sufficiently and properly reflect all direct and indirect costs expended by either party in the performance of the service(s) described herein. These records shall be subject to inspection, review or audit by personnel of both parties, other personnel duly authorized by either party, the Office of the State Auditor, and federal officials so authorized by law. All books, records, documents, and other material relevant to this Agreement will be retained for six (6) years after

expiration and the Office of the State Auditor, federal auditors, and any persons duly authorized by the parties shall have full access and the right to examine any of these materials during this period.

Records and other documents, in any medium, furnished by one party to this agreement to the other party, will remain the property of the furnishing party, unless otherwise agreed. The receiving party will not disclose or make available this material to any third parties without first giving notice to the furnishing party and giving it a reasonable opportunity to respond. Each party will utilize reasonable security procedures and protections to assure that records and documents provided by the other party are not erroneously disclosed to third parties.

RIGHTS IN DATA

Copyright in all material created by UNIVERSITY and paid for by PARKS as part of this Agreement shall be the property of the State of Washington. Both PARKS and UNIVERSITY may use these materials, and permit others to use them, for any purpose consistent with their respective missions as agencies of the State of Washington. This material includes, but is not limited to: books; computer programs; documents; films; pamphlets; reports; sound reproductions; studies; surveys; tapes; and/or training materials. Material which UNIVERSITY uses to perform the Agreement, except material and information obtained from PARKS, shall be owned by UNIVERSITY or such other party as determined by Copyright Law and/or Contractor's internal policies; however, for any such materials, UNIVERSITY hereby grants (or, if necessary and to the extent reasonably possible, shall obtain and grant) a perpetual, unrestricted, royalty free, non-exclusive license to PARKS to use the materials for PARKS' internal purposes.

INDEPENDENT CAPACITY

The employees or agents of each party who are engaged in the performance of this Agreement shall continue to be employees or agents of that party and shall not be considered for any purpose to be employees or agents of the other party.

AGREEMENT ALTERATIONS AND AMENDMENTS

This Agreement may be amended by mutual agreement of the parties. Such amendments shall not be binding unless they are in writing and signed by personnel authorized to bind each of the parties.

TERMINATION

Either party may terminate this Agreement upon 30 (thirty) days prior written notification to the other party. If this Agreement is so terminated, the parties shall be liable only for performance rendered or costs incurred in accordance with the terms of this Agreement prior to the effective date of termination.

TERMINATION FOR CAUSE

If for any cause, either party does not fulfill in a timely and proper manner its obligations under this Agreement, or if either party violates any of these terms and conditions, the aggrieved party will give the other party written notice of such failure or violation. The responsible party will be given the opportunity to correct the violation or failure within 15 (fifteen) working days. If failure or violation is not corrected, this Agreement may be terminated immediately by written notice of the aggrieved party to the other.

DISPUTES

In the event that a dispute arises under this Agreement, it shall be determined by a Dispute Board in the following manner: Each party to this Agreement shall appoint one member to the Dispute Board. The members so appointed shall jointly appoint an additional member to the Dispute Board. The Dispute Board shall review the facts, agreement terms and applicable statutes and rules and make a determination of the dispute. The determination of the Dispute Board shall be final and binding on the parties hereto. As an alternative to this process, either of the parties may request intervention by the Governor, as provided by RCW 43.17.330, in which event the Governor's process will control.

GOVERNANCE

This Agreement is entered into pursuant to and under the authority granted by the laws of the state of Washington and any applicable federal laws. The provisions of this Agreement shall be construed to conform to those laws.

In the event of an inconsistency in the terms of this Agreement, or between its terms and any applicable statute or rule, the inconsistency shall be resolved by giving precedence in the following order:

a. Applicable state and federal statutes and rules;
b. Statement of work; and
c. Any other provisions of the agreement, including materials incorporated by reference.

ASSIGNMENT

The work to be provided under this Agreement, and any claim arising thereunder, is not assignable or delegable by either party in whole or in part, without the express prior written consent of the other party, which consent shall not be unreasonably withheld.

WAIVER

A failure by either party to exercise its rights under this Agreement shall not preclude that party from subsequent exercise of such rights and shall not constitute a waiver of any other rights under this Agreement unless stated to be such in a writing signed by an authorized representative of the party and attached to the original Agreement.

SEVERABILITY

If any provision of this Agreement or any provision of any document incorporated by reference shall be held invalid, such invalidity shall not affect the other provisions of this Agreement which can be given effect without the invalid provision, if such remainder conforms to the requirements of applicable law and the fundamental purpose of this agreement, and to this end the provisions of this Agreement are declared to be severable.

ALL WRITINGS CONTAINED HEREIN

This Agreement contains all the terms and conditions agreed upon by the parties. No other understandings, oral or otherwise, regarding the subject matter of this Agreement shall be deemed to exist or to bind any of the parties hereto.

CONTRACT MANAGEMENT

The project manager for each of the parties shall be responsible for and shall be the contact person for all communications and billings regarding the performance of this Agreement.

The Project Manager for Washington State Parks is:

Robert Fimbel, Chief, Resources Stewardship — Phone (360) 902-8592
Washington State Parks and Recreation Commission
7150 Cleanwater Drive SW
PO Box 42650
Olympia, WA 98504-2650

The Project Manager for the University of Washington is:

Gregory J. Ettl, Director — Phone (206) 616-4120
Center for Sustainable Forestry at Pack Forest
College of Forest Resources
University of Washington
Box 352100
Seattle, WA 98195-2100

IN WITNESS WHEREOF, the parties have executed this Agreement.

WASHINGTON STATE PARKS AND RECREATION COMMISSION	**UNIVERSITY OF WASHINGTON**
_____	_____
Signature	Signature
Assistant Director	_____
Title	Title
_____	_____
Date	Date

APPROVED AS TO FORM:
Mark Schumock /s/
February 2006

ATTACHMENT A

Statement of Work

Forest Health Plans for Seaquest and Lake Isabella State Parks

Summary

The Washington State Parks and Recreation Commission (WSPRC) seeks consultant services from the Center for Sustainable Forestry at Pack Forest (CSF-PF) to develop forest health assessment and management plans for both the 450 acre Seaquest State Park (SQSP), and the 194 acre Lake Isabella State Park (LISP). A rare plant and vegetation association survey for SQSP was completed in December 2006 with 16 vegetation types found within 37 community polygons; no rare plant survey has been conducted for LISP. The SQSP rare plant survey, aerial photos of each park, and the expert opinion of park staff were used propose a sampling scheme to assess forest health in SQSP and LISP. Forest survey data will be used to model forest stand development and then create separate forest health plans for each park. The management plans are proposed together for simplicity of contracting but the work will stand as distinct surveys and documents.

Introduction

SQSP is the larger of the parks with heterogeneity spanning wetlands and forested wetlands, and both younger and mature or old-growth dominated red alder and Douglas-fir sites. SQSP exists as 3 distinct areas including 1) northern portion with primarily recent plantations, 2) central mature forest area interspersed with campgrounds, and 3) forested islands within Silver Lake (Smith and Morrison 2006). A total of 70 survey plots covering 350 acres are recommended for purposes of creating a forest health plan. LISP is smaller with fewer stands to be surveyed. I delineated 14 polygons of forested habitat from an aerial photograph and key State Park staff have determined that a total survey of approximately 30 sites over 120 acres will be required. The proposed work will include a survey of forest resources and habitat, analysis of the survey data including growth modeling and stand visualization, design of silvicultural treatments to enhance forest health and biodiversity (where appropriate), and the presentation of a forest management plan for select areas of SQSP and LISP.

Forest stands will be surveyed to quantify overstory and understory vegetation including: species composition, basal area, trees/acre, canopy closure, canopy stratification, understory composition, and snag and coarse woody debris density. Field surveys will be conducted from September-November 2008 with a presentation of the survey findings for each park to be presented to key park personnel in January 2009. During the fiscal year 2008/2009 silvicultural prescriptions that promote forest health, old-growth dependent structure, and that enhance overall native biodiversity of the SQSP and LISP, will be designed (Phase Two of the project). This work will take place during January to May 2009 with final reports to be presented to Park Staff by June 1, 2009. All revisions and final accounting is to be completed by June 15, 2009. Prescriptions will be designed as necessary to reduce closed canopy conditions and to facilitate stand diversification while minimizing the threat of invasive species spreading in existing stands.

Project Goals

The goal of this project is to enhance the short- and long-term potential of SQSP and LISP to support a diversity of native vegetation and wildlife, with an emphasis on advancing forest

vegetation diversity and structure that favor natural stand development, native species and late-succsessional dependent species. Specifically, this project seeks to:

- reduce closed canopy conditions associated with recent plantations.
- increase structural and vegetation diversity.
- consider landscape-level stand arrangements to maximize habitat for interior habitat dependent species.
- plan for continuous vegetation diversity through time.
- protect rare vegetation types and enhance rare vegetation habitats.
- inform public of efforts to enhance old-growth structures.
- provide a safe and aesthetically pleasing environment for visitors, including consideration of viewsheds and experiences in common use areas.
- reduce wildfire risk, especially in relation to buildings and infrastructure.
- reduce the abundance of exotic vegetation and increase native vegetation through either silviculture or restoration projects.
- develop a plan that is compatible with Forest Stewardship Council certification requirements.

Project Area

SQSP exists as 3 distinct areas including 1) northern portion of more recent plantations, 2) the center of the park where old-growth and mature forest is interspersed with campgrounds, and 3) forested islands within Silver Lake (Smith and Morrison 2006). I propose that surveys be conducted in the following 21 stands (1, 2, 18, 19, 20, 21, 23, 23B, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 33B, 34, 37, 40, and 89) over an estimated 350 ac (Figure 1). One plot will be sampled for every 5 ac requiring a minimum of 70 plots with a few extra plots necessary to assure more than one sample in smaller plots. The exact number of survey plots will be determined and a stratified random sample will be established prior to beginning work.

LISP contains at least 14 distinct vegetation plots but to date no rare plant survey of this area has been completed. I have drawn preliminary stand boundaries on an aerial photograph (Figure 2). An examination of this first delineation by key state park personnel determined that a forest health survey should be focused on polygons 2, 3, 4, 5, 7, 8, 9, 11, 13, and 14. The exact acreage of this area is undetermined but is approximately 120 acres, requiring approximately 28 plots.

Phase I

Stand Delineation

The stand boundaries and vegetation types classified by Smith and Morrison (2006) will be used as a starting point for determining stand boundaries at SQSP. A GIS data layer of this park will be obtained from State Parks personnel with a stratified random sample to identify plot centers which will then be located by our field crew for survey. LISP will require confirmation that the stand boundaries roughly drawn in Figure 2 represent true stand boundaries. The forest health planning process will use existing vegetation polygons and data as a starting point and add forest inventory data necessary for the development of silvicultural prescriptions.

I anticipate that the stands described in the Project Area section (above) will serve as the starting point for field surveys. Grouping of stands either by vegetation type or by location may be permissible as long as the finer scale information collected in the original vegetation survey is preserved at some level. It will be of fundamental importance to maintain information on both rare community types and on rare plant species as these will need to be incorporated into the final

management plan. The actual stand boundaries are still being determined and will be approved by State Park personnel prior to field surveys.

Forest Survey

The CSF-PF will use a combination of fixed and variable radius plots to survey forest stands at a density of one plot per five acres. A sampling grid will be established by State Parks with the assistance of the Washington Department of Natural Resources. At each plot center the following information will be recorded:

1. Physical Attributes
- Slope (%)
- Aspect
- GPS location and plot number

2. Overstory Characteristics (using a BAF 20 prism)
- Standing live trees
    a. Species
    b. Diameter at breast height (DBH in inches)
    c. Dominance (D, CD, I, S)
    d. Average crown ratio by dominance (0.1-1.0)
- Snags
    a. Species
    b. Height (of snags > 1.8 meters)
    c. DBH (of snags > 10 cm)
    d. Decay class (based on WDNR 2004. Natural Resources Field Procedures: Forest Resource Inventory System. FIRS Ver. 1.41. Feb. 04)
- Average height of canopy
- Basal area (ft^2/acre) and trees/acre
- % canopy closure (densiometer)

3. Middle and understory characteristics within a 0.05 ac fixed radius plot (26.33' radius)
- Shrubs
    a. Estimate % cover of the 3 most abundant understory and shrub species
    b. Estimate the number of shrub species
    c. Estimate the maximum height for the 3 most common understory and shrub species
- Saplings (<10 inches DBH)
    a. Species
    b. Diameter at breast height (DBH in inches)
- Coarse woody debris (CWD)
    a. Record the number pieces (when >6" end falls inside plot)
    b. Record decay class (based on WDNR 2004. Natural Resources Field Procedures: Forest Resource Inventory System. FIRS Ver. 1.41. Feb. 04.)

Deliverables

The forest survey data must be entered into an EXCEL spreadsheet that will allow for the sorting of these data by the attributes noted above. A shapefile must also be provided that links the field data to GPS plot centers.

Phase II

Stand Analysis

The development of silvicultural prescriptions and the eventual forest health plan begins with a summarization of the forest survey data. The format of presentation is to be determined but will provide a stand-by-stand summary of forest conditions, observed forest health issues and an estimate of wood volumes in MBF by grade and species, and the tons of pulp by species. Summarizing forest survey data may lead to a redrawing of existing stand boundaries and all proposed changes in boundaries should be shared with park staff prior to creating a revised stand delineation map.

Determination of Existing and Projected Wildlife Habitat

Stand data will be summarized using Johnson and O'Neil's habitat classifications on a stand-by-stand basis for the entire forest management area. (O'Neil et al. 2001). Polygons will be summarized by habitat classifications to describe the current and potential of SQSP and LISP to provide suitable habitat for a number of species, especially those species of concern and those associated with old growth forest habitat. The CSF-PF will create GIS layers depicting habitat by summary categories.

It is a fundamental objective of this proposal that management plans be created to manage for both old-growth dependent species and a wide range of biodiversity. SQSP and LISP are both likely too small to serve as primary habitat for either spotted owl and marbled murrelet habitat but plans should address the future potential of producing/maintaining potential habitat. Spatial aggregation of stands with old growth structures is desired.

Stand Prescriptions

One goal of this project is to develop silvicultural prescriptions to advance natural stand development, reduce dense canopy conditions (often associated with sparse understory habitat), and produce old-growth structures that will increase the potential of each park to support a variety of species. The application of partial harvests that speed the transition from canopy closure to understory reinitiation are desired and these prescriptions must be done in a manner that considers the cultural, recreation, and aesthetic needs of the park. The task is a blend of science and art. Science can be used to guide anticipated forest growth, mortality, and regeneration and this information can be tied into habitat classifications that typically support the desired future conditions. The art of silviculture is in blending aesthetic and recreation needs with planned harvests.

The (CSF-PF) will work with key park staff and key stakeholders to develop silvicultural treatments for each stand—stands to be verified prior to field surveys. Silvicultural prescriptions will require forest stand simulation software such as ORGANON or the Forest Vegetation Simulator—FVS to help predict future stand conditions. They may also require habitat suitability index models or other related modeling for select wildlife species of interest. Silvicultural treatments for any stands should only be considered where they are clearly believed to facilitate stand development or prevent stagnation. Stand prescriptions should be sufficiently detailed to allow park personnel to

mark the prescriptions. Spatial and temporal integration of proposed treatments will be critical in both accelerating old-growth structures and in maintaining a diversity of habitats on the landscape.

Forest Management Plans

The CSF-PF will develop a separate forest management plan for the SQSP and LISP that will guide park management over the next 50 years. The primary goal of this plan is to enhance wildlife habitat while maintaining a safe and pleasing environment for visitors. The plan should incorporate a means for silviculture demonstration sites that will educate the public as to how harvesting trees is being used to enhance wildlife.

The forest management plan should include the following information

1) Introduction (site history and characteristics)
2) Project goals
3) Methodologies
4) Survey findings
5) Stand prescriptions (including stand response models)
6) Integration of stand prescriptions across time and space
7) Harvest recommendations (if any) and schedule

Public Meetings

The CSF-PF staff will present a draft forest health management plan for each park at a location designated by WA State Parks to solicit public input into the planning process. Meetings are to be scheduled after completion of a draft of each park's forest health plan, while allowing time to incorporate public input into the planning process.

Deliverables

Forest management plan spanning 50 years that addresses the items outlined above. Associated tables and figures summarizing field surveys and stand projections. Figures including visualization of stand projections.

References

O'Neil, T.A., Bettinger, K.A., Vander Hayden, M., Marcot, G., Barrett, C., Mellen, T.K., Vanderhaegen, W.M., Johnson, D.H., Doran, P.J., Wunder, L., and K.M. Boula. 2001. Structural Conditions and Habitat Elements of Oregon and Washington. p. 115-139. *In*: Johnson, D.H., and T.A. O'Neil (Eds.). Wildlife-Habitat Relationships in Oregon and Washington. Oregon State University Press, Corvalis, OR.

Smith, H.M. IV and P.H. Morrison. 2006. Rare Plant and Vegetation Survey of Seaquest State Park. Pacific Biodiversity Institute, Winthrop, Washington. 88 p.

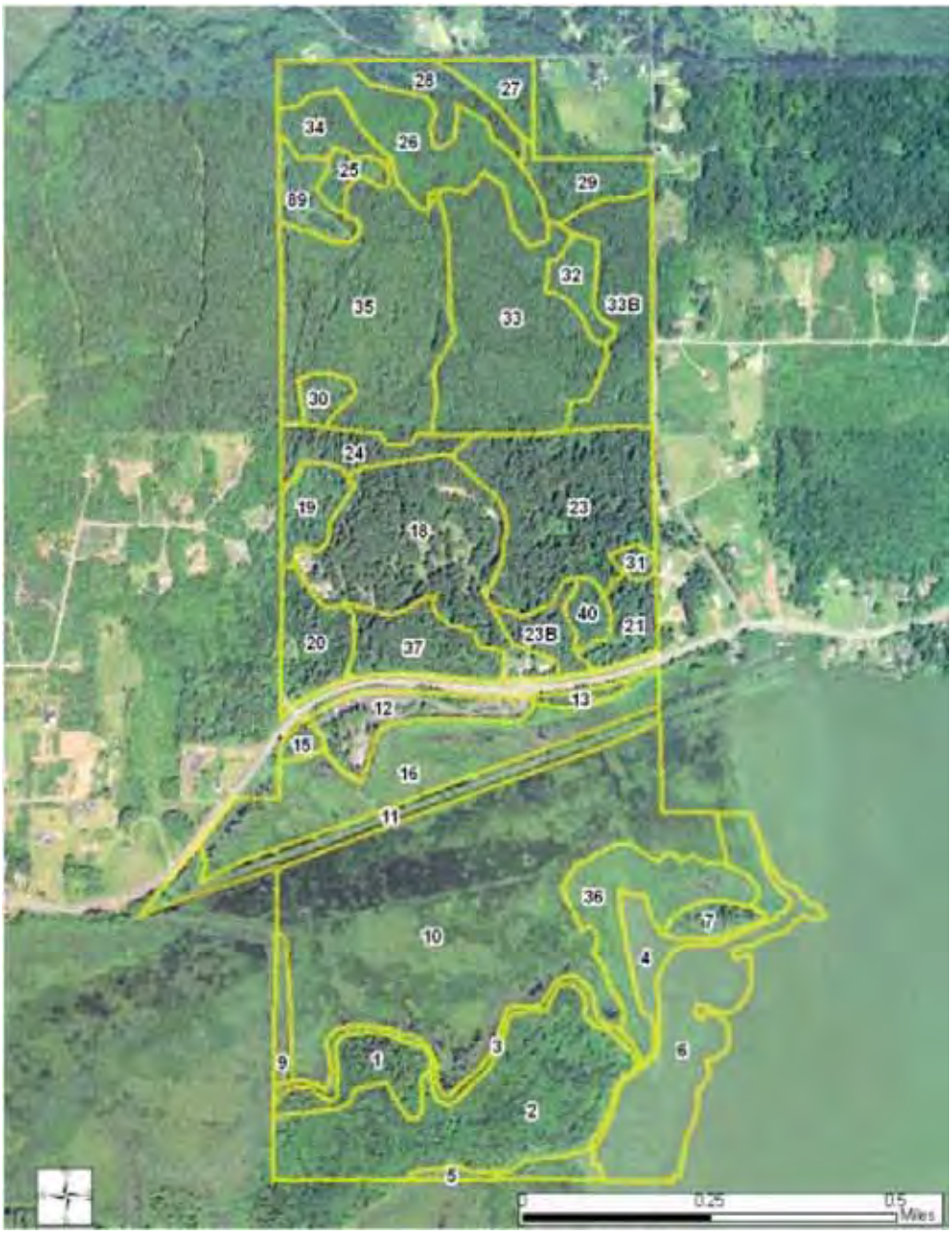

Figure 1. Stand boundaries delineated for Seaquest Park by Smith and Morrison (2006) as part of a rare plant survey. Stands 21 (1, 2, 19, 20, 21, 23, 23B, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 33B, 34, 40, and 89) will be surveyed and incorporated in a forest health plan for the park.

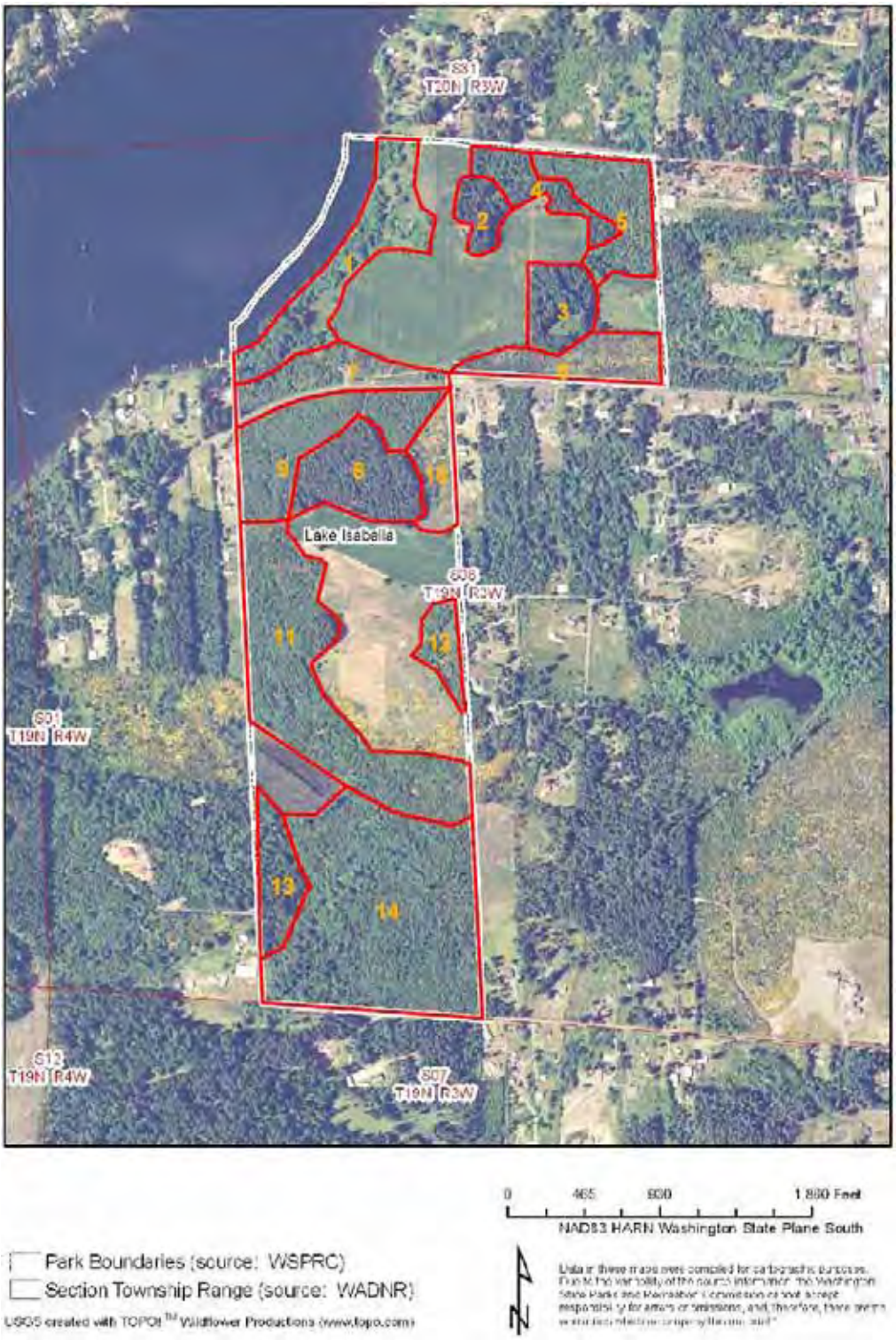

Figure 2. Lake Isabella State Park proposed stand delineation. Stands # 1, 6, 10, and 12 are believed to be stands that will not be included in the survey. Stands 2, 3, 4, 5, 7, 8, 9, 11, 13, and 14 will all be included in surveys and subsequent forest health planning.

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END SCOPE OF SERVICES

BUDGET & JUSTIFICATION

Phase I Field Surveys

The survey of field sites will require the creation of a two person field crew that will first be trained by Duane Emmons on field sampling procedures and then the stationing of the crew at each of the remote field sites in a base camp for 4 days/week in order to conduct field surveys. The UNIVERSITY has determined the time needed to survey plots based on an average of 3.5 plots surveyed/day. This estimate allows for travel time to the site from Pack Forest and for difficulties that can occur in the field.

- Seaquest will require 20 days of field sampling
  - 1.38 month of salary and benefits for 2 field techs $7206
  - 46 days (2 people) of food per diem @ $39/day $1794
  - 6 roundtrips (1020 miles) to Seaquest from Pack Forest $0.585/mile $597
  - Field Supplies: tape, marking crayons, stakes, etc. $100
  - Emmons and Ettl: design and field crew training salary & benefits $1067
  - **Subtotal** **$10,764**

- Lake Isabella will require 8 days of field sampling
  - ½ month of salary and benefits for 2 field techs $2509
  - 16 days (2 people) of food per diem @ $39/day $624
  - 3 round trips (372 miles) to Lake Isabella from Pack @ $0.505/mile $218
  - Field Supplies: tape, marking crayons, stakes, etc. $50
  - Emmons and Ettl: design, training, and compliance sal. & bene. $492
  - **Subtotal** **$3893**

Phase II Forest Health Plans

The creation of forest health management plans requires the input of field data into Excel data sheets, linking data sheets to shape files, GIS work, transfers of field data to the Landscape Management Systems (LMS). Much of this work can be done by one of our research technicians. The application of various management scenarios using LMS will explored on a stand-by-stand basis to determine the effects of potential thinning and planting treatments, projecting stand structures and wildlife habitat forward for 50 years, and visualizing stands. This stage of the planning process is anticipated to be iterative as we seek management alternatives that match the objectives of State Park's stakeholders. The final step in the process is writing and editing forest health plans with sufficient details that they can be used by State Park management. The work will be conducted by Duane Emmons, Greg Ettl or other research-oriented staff employed by the Center for Sustainable Forestry at Pack Forest.

- Seaquest State Park. Allowance of 4 months to complete.
  - Inputting data and modeling, Emmons and Technician sal. & bene. $5456
  - Meetings, discussions, and writing of plan, Ettl & others sal. & bene. $7140
  - Equipment: CD's, paper, printing, and binding charges $150
  - **Subtotal** **$12,746**
- Lake Isabella State Park. Allowance of 2 months to complete.
  - Inputting data and modeling, Emmons and Technician sal. & bene. $2742
  - Meetings, discussions, and writing of plan, Ettl & others sal. & bene. $3708
  - Equipment: CD's, paper, printing, and binding charges $150
  - **Subtotal** **$6600**

Summary Budget

The University of Washington requires indirect administrative charges of 26% for work performed primarily off campus. This work qualifies for this off campus rate as the vast majority of work will take place either in the field or at the Center for Sustainable Forestry at Pack Forest.

• Seaquest	
o Phase 1	$10,764
o Phase 2	$12,746
o Subtotal	$23,510
o UW Overhead (26%)	$6112
o Total Budget	$29,623
• Lake Isabella	
o Phase 1	$3,893
o Phase 2	$6,600
o Subtotal	$10,493
o UW Overhead (26%)	$2,728
o Total Budget	$13,221
Total Budget Required September 1 2008-June 30, 2008	**$42,844**

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END BUDGET AND JUSTIFICATION